

**IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE**

SOFTVIEW LLC,

Plaintiff,

v.

APPLE INC.; AT&T MOBILITY LLC;  
DELL INC.; HTC CORP.; HTC  
AMERICA, INC.; HUAWEI  
TECHNOLOGIES CO., LTD.;  
FUTUREWEI TECHNOLOGIES, INC.;  
KYOCERA CORP.; KYOCERA  
WIRELESS CORP.; LG ELECTRONICS,  
INC.; LG ELECTRONICS USA, INC.; LG  
ELECTRONICS MOBILECOMM U.S.A.,  
INC.; MOTOROLA MOBILITY INC.;  
SAMSUNG ELECTRONICS CO., LTD.;  
SAMSUNG ELECTRONICS AMERICA,  
INC.; SAMSUNG  
TELECOMMUNICATIONS AMERICA,  
LLC; and SONY ERICSSON MOBILE  
COMMUNICATIONS (USA) INC.,

Defendants.

Civil Action No. 10-389-LPS

**CONSOLIDATED**

**DECLARATION OF GLENN REINMAN  
IN SUPPORT OF SOFTVIEW LLC'S  
OPENING CLAIM CONSTRUCTION BRIEF**

I, Glenn Reinman, declare as follows:

1. I have personal knowledge of the facts set forth in this Declaration and, if called as a witness, could and would testify competently to such facts under oath.

2. I am a professor of computer science at the University of California, Los Angeles. I teach courses in Computer Systems Architecture and Computer Organization. My curriculum vitae is attached as Exhibit A.

3. I have received numerous awards and grants relating to my work in computer science, including a National Science Foundation Expedition Grant, a Defense Advance Research Project Agency Grant, a Gigascale System Research Center Grant, and a National Science Foundation Career Award.

4. I have lectured nationally and internationally on many topics, including the architecture of mobile devices. I have published over 70 peer-reviewed research papers, paper articles, editorials, and book chapters.

5. I received my Bachelor of Science degree from the Massachusetts Institute of Technology in 1996. I received my Doctor of Philosophy (PhD) in computer science from the University of California, San Diego in 2001. Prior to joining the faculty at the University of California, Los Angeles, I worked at Compaq Computer Corporation (now Hewlett Packard) in their Western Research Lab and at Intel Corporation in their Microprocessor Research Lab. Since 2001, I have been employed at the University of California, Los Angeles.

6. For these reasons, I consider myself to be skilled in the area of computer science, including the rendering of web pages on mobile devices. I was one of at least ordinary skill in the art in the above areas as of June of 2000.

7. I have reviewed U.S. Patent No. 7,461,353 (the "'353 patent") and U.S. Patent No. 7,831,926 ("the '926 patent") as well as both SoftView LLC's and Defendants' proposed constructions of the claim terms discussed in this declaration. I have also reviewed relevant portions of the patent prosecution histories for these patents.

8. As a person of at least ordinary skill in the art at the time of the filing date of the patents, it is my opinion that the definition of "vector" set forth in the Merriam-Webster Collegiate Dictionary, Tenth Edition at 1304 (Merriam-Webster, Inc. 2001)—"a quantity that has magnitude and direction and that is commonly represented by a directed line segment whose length represents the magnitude and whose orientation in space represents the direction . . . ."—reflects the understanding in the art at the time of the filing date of the patents. In addition, the understanding in the art at the time of the filing date of the patents was that "vector," in the context of computer graphics, specifically referred to locations defined by X,Y coordinates in the context of an X,Y grid, as described in the definition of "vector" in the Microsoft Computer Dictionary, Fifth Edition at 548 (Microsoft Press 2002). Similarly, the understanding in the art at the time of the filing date of the patents was that vector graphics referred to "[i]mages generated from mathematical descriptions that determine the position, length, and direction in which lines are drawn . . . ." as described in the Microsoft Computer Dictionary. Therefore, in my opinion, these three dictionary definitions reflect the understanding in the art at the time of the filing date of the patents of the meaning of the term "vector." These definitions are consistent with SoftView's claim construction for "vector."

9. It is my opinion, based on both my reading of the patent specifications and my understanding of the art, that the construction of "vector" proposed by Defendants is overly restrictive. The phrase "from a *single* point for the page or frame" does not make sense because a vector is one point's location relative to another point. When discussing a single vector, the concept that the origin point would be "single" is redundant and makes the construction more confusing than necessary. Moreover, the concepts of the point being "for the page or frame" is not supported by the specifications and appears to be an arbitrary limitation.

10. In addition, the concept of generating a vector from a particular start point (e.g., the "primary datum" or "page datum") to a particular end point (e.g., an object) incorporates the preferred embodiment of the specification. In my opinion, the specifications do not require that a "vector", standing alone, describe the relative location of an object. Indeed, the claims often have other claim language that explicitly requires a vector to do just that, which means that the term "vector," standing alone, cannot include that meaning without making other language in the claim redundant. *See, e.g.*, '353 patent, claim 58 ("generating a vector from the primary datum to the object datum for the object").

11. As a person of at least ordinary skill in the art at the time of the filing date of the patents, it is my opinion, after reviewing the patents-in-suit, that the "page datum" (also referred to as "the page's datum point"), described in the specification, is a type of "primary datum, as recited in the patent claims. In particular, while the "primary datum" can refer to any "origin point" for a vector, the "page datum" refers to a particular "primary datum" used as the origin point for a particular page. Therefore, it is my understanding that each reference to a "page datum" in the patents is also a reference to a "primary datum."

12. As a person of at least ordinary skill in the art at the time of the filing date of the patents, it is my opinion, after reviewing the patents-in-suit, that the "layout location datum" recited in the claims refers to "one or more points corresponding to the location of the object," which may include one or more points establishing the boundaries of the object. The patents do not refer to a "fixed" point in connection with "layout location datum." Nor do the patents' specifications or claims support the limitation "on the full-size web page" in relation to "layout location datum."

13. As a person of at least ordinary skill in the art at the time of the filing date of the patents, I understand the claim terms "preserve(s)/preserved/preserving/preservation," which appear in claims 1, 36, 66, 118, 149, and 252 of the '353 Patent and claims 30 and 52 of the '926 patent, as having their plain and ordinary meaning. Thus, the claim terms "preserve(s)/preserved/ preserving/ preservation" are not indefinite because one of ordinary skill in the art could discern the boundaries of the claim based on the claim language, the specification, the prosecution history, and the knowledge in the relevant art.

14. My understanding of the meaning of "preserves" is supported by the patent specifications. For example, in column 2, the '353 patent teaches that when Web content has been scaled for viewing on devices with a small screens, the rendered displays of the content "provide substantially the same or identical layout as the original Web page." In my opinion, this description is in accordance with the plain and ordinary meaning of "preserves," when it is used in the patent claims.

15. Likewise, column 2 of the '353 patent teaches that, "[a]ccording to additional aspects of the invention, methods and software for enabling support for resolution-independent scalable display of Web content are provided. The methods and software enable users of various devices, from handheld devices with small screens, to desktop PC's and laptops, to very large screen devices, to view and interact with Web pages in a manner independent of the screen resolution of such device's built-in or associated display, while maintaining the look and feel of browsing such pages with a conventional desktop browser." Again, this description comports with my understanding of the plain and ordinary meaning of "preserves," when it is used in the patent claims.

16. The patent prosecution histories provide further specificity regarding the boundaries of the claim language. *See* FH003557-560 ('926 Patent File History). Figure 2a from the '926 patent's file history, attached as Exhibit B to this brief, is illustrative. On the left is the NY Times web page displayed on a desktop browser. On the right is the NY Times web page displayed on the SoftView mobile device browser. The mobile device web page on the right "preserves" the original page layout, functionality, and design of the desktop computer web page on the left. Figures 2a-2c, also attached as a part of Exhibit B, provide a similar understanding.

17. Thus, in the context of the claims, the plain and ordinary meaning of the claim terms "preserve(s)/preserved/preserving/preservation" is that web page content drawn on the small screen of a wireless device should preserve (or, to use a synonym, "maintain") the look and feel (which the patents also describe as the "original layout, functionality, and design") of the same web page content as it was retrieved from the server and intended to be rendered on a desktop computer.

18. Figures 1A and 1B from the patent specifications are attached as Exhibits C and D to my declaration, respectively. I understand these figures to depict (among other things) an external antenna on the cellular phone (the cellular phone is colored green and the external antenna is colored pink). These figures also show the cellular phone receives wireless communications (colored yellow) from a wireless communications tower (colored blue) that is connected to the Internet.

19. It is my opinion, as a person of at least ordinary skill in the art at the time of the filing date of the patents, that the cellular phone shown in Figures 1A and 1B would communicate with the wireless communications tower using the depicted external antenna

because wireless communications are accomplished using antennas, and it seems unlikely that the external antenna would serve any other purpose on the cellular phone.

20. It is also my opinion that if the cellular phone shown in Figures 1A and 1B did not have an antenna, wireless communication would not be possible. An antenna is what converts radio signals into electrical signals (and vice versa). Thus, an antenna is inherent in any wireless communication device. However, the antenna does not necessarily need to be an external antenna like the one depicted on the cellular phone in Figure 1A. An internal antenna can also facilitate wireless communication.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed this 21st day of September 2012 in Boston, Massachusetts.

  
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Professor Glenn Reinman, Ph.D.